

EXHIBIT 4

1 FOOD AND DRUG ADMINISTRATION
2 IN COLLABORATION WITH THE NATIONAL CANCER INSTITUTE
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6 Methodological Considerations in Evaluation of
7 Cancer as an Adverse Outcome Associated with
8 Use of Non-Oncological Drugs and Biological
9 Products in the Post-Approval Setting
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15 Thursday, September 11, 2014

16 8:02 a.m. to 3:56 p.m.
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18

19 Double Tree by Hilton Hotel

20 The Pinnacle Grand Ballroom

21 8727 Colesville Road

22 Silver Spring, Maryland

Meeting Roster

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20 Office of Hematology and Oncology Products

21 Office of Drug Evaluation-IV

22 CDER, FDA

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1 DR. GRAHAM: Just to sort of address your
2 question, Howard, the work that we're doing with
3 pancreatic cancer, we're using -- it's within our
4 SIMS database, so we're using the SEER diagnosed
5 cases. So there, they have been classified by SEER
6 as pancreatic cancer. So those are the cases that
7 we're using in our diabetes work.

8 We have developed an algorithm for
9 pancreatic cancer that has very good performance,
10 and our next step will be, when we've completed the
11 study in SIMS -- which actually we're going to be
12 looking at the very first analyses next Tuesday.

13 When we finish that, we'll then take the
14 algorithm, apply it to the entire Medicare database
15 to test our principle of developing an algorithm in
16 the SEER-Medicare environment, applying it to the
17 entire Medicare environment, getting some of those
18 medical records, and seeing if the results we get
19 in the entire population are the same as the
20 results we got in SEER, that we'll get in SEER and
21 this assay sensitivity.

22 Then if that works, then the third step will

1 be to tackle drugs, and the incretins are at the
2 top of our list there. There is a lot of concern
3 about that within the agency, the incretins in
4 pancreatic cancer.

5 DR. WONG: The public speaker?

6 DR. HECKMAN-STODDARD: Brandy Heckman-
7 Stoddard, NCI.

8 Dr. Graham, I also wanted to have you
9 comment on the algorithms in terms of when they
10 were developed in the past years in terms of time
11 and what type of data was used to develop the
12 algorithm, because as statins have increased in
13 usage and the types of treatment for diabetes have
14 changed over time, the risk of microvascular
15 complications may change. So those algorithms
16 might have been developed on earlier data that may
17 not be relevant to today's treatment of diabetes.

18 DR. GRAHAM: Right. The data that we used
19 for the algorithms covered the period from 2005 to
20 2009. So we used SEER data from 2005 to 2009 to
21 develop the algorithms.

22 When we get the data for 2010 and '11 and do